

## U.S. Department of Energy

(08/05)

## WEATHERIZATION ANNUAL FILE WORKSHEET

Expiration Date: 6-30-08

Grant: R530683

Amendment: 004

State: MO

Program year: 2006

Budget period: 07/01/2006 - 06/30/2007

## II.3 Subgrantees

Grantee	City	Tentative	
		Funding	Units
Central Missouri Community Action	Columbia	308,992.00	89
Community Action Agency of St. Louis County	St. Louis	547,841.00	169
Community Services, Incorporated of Northwest Mo.	Maryville	206,871.00	59
Delta Area Economic Opportunity Corporation	Portageville	276,592.00	80
East Missouri Action Agency	Park Hills	268,013.00	77
Economic Security Corporation of Southwest Mo.	Joplin	261,495.00	75
Green Hills Community Action Agency	Trenton	143,876.00	41
Jefferson-Franklin Community Action Corporation	Hillsboro	216,236.00	62
Kansas City Neighborhood and Community Services Dept.	Kansas City	694,526.00	215
Missouri Ozarks Community Action, Inc.	Richland	271,988.00	78
Missouri Valley Community Action Agency	Marshall	218,434.00	63
North East Community Action Corporation	Bowling Green	315,198.00	91
Northeast Missouri Community Action Agency	Kirksville	109,744.00	31
Ozark Action, Inc.	West Plains	221,023.00	63
Ozarks Area Community Action Corporation	Springfield	551,550.00	170
South Central Missouri Community Action Agency	Winona	203,666.00	58
Urban League of Metropolitan St. Louis	St. Louis	570,860.00	176
West Central Missouri Community Action Agency	Appleton City	243,047.00	70
<b>TOTALS</b>		5,629,952.00	1,667

## II.4 WAP Production Schedule

<b>Total Units (excluding reweatherized)</b>	<b>1,632</b>
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Units by type (excluding reweatherized):	
Owner-occupied single-family site-built	
Single-family rental site-built	
Multi-family	
Owner-occupied mobile home	
Renter-occupied mobile home	
Shelter	
Units by occupancy:	
Elderly	
Persons with disabilities	
Native American	
Children	
High residential energy user	
Household with a high energy burden	
Other unit types:	
<b>Rewatherized Units</b>	<b>35</b>
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<b>Average Unit Costs, including Reweatherization, Subject to DOE Program Rules</b>	
<b>VEHICLES &amp; EQUIPMENT AVERAGE COST PER DWELLING UNIT (DOE RULES)</b>	
A Total Vehicles & Equipment (\$5,000 or more) Budget	
B Total Units Weatherized	1,632
C Total Units Reweatherized	35
D Total Dwelling Units to be Weatherized and Reweatherized (B + C)	1,667
E Average Vehicle & Equipment Acquisition Cost per Unit (A divided by D)	\$0.00
<b>AVERAGE COST PER DWELLING UNIT (DOE RULES)</b>	
F Total Funds for Program Operations	\$4,214,855.00
G Total Dwelling Units to be Weatherized and Reweatherized (from line D)	1,667
H Average Program Operations Cost per Unit (F divided by G)	\$2,528.41
I Average Vehicle & Equipment Acquisition Cost per Unit (from line E)	\$0.00
J Total Average Cost per Dwelling (H plus I)	\$2,528.41

**II.5 Energy Savings**

Method used to calculate energy savings: WAP algorithm ☐ Other (describe below) ☒

The State estimates it will save approximately .04458 TBTU for the Program Year. The energy savings methodology assumes an average Missouri home consumes 198.11 mmbtu and saves approximately 13.5% as a result of WAP (from September 1994 Weatherization Works: Final Report of the National Weatherization Evaluation). ES = 198.11 mmbtu x 0.135 savings x 1,667 units.

Estimated average annual savings per dwelling based on the 1996 DOE Metaevaluation study

Primary heating fuel	Space Heating Savings	Total fuel Savings	Net savings(Mbtu/year)
Natural Gas	33.5%	23.4%	31.2 Mbtu/year
Electricity	35.9%	12.2%	18.9 Mbtu/year
Fuel Oil (Northeast)	17.7%	17.7%	22.4 Mbtu/year
All fuels*	18.2%	13.5%	17.6 Mbtu/year

\*Includes estimates for propane, wood, kerosene, and other fuels.

Estimated energy savings: 44,584 (MBtu)

Estimated prior year savings: 51,483

Actual: 0

If variance is large, explain:

**II.6 Training, Technical Assistance, and Monitoring Activities**

The goals of the Missouri Low-income Weatherization Assistance Program are to provide effective management of federal, state and local funding; continuation of improved weatherization services, increased energy efficient housing, long-term reduction in utility bills and comfort and safety of those served.

Section II.6 herein describes specific training and technical assistance activities. Section III.4 of the "On file" Information describes the overall approach and includes (1) Assessment of training needs for local weatherization agencies and (2) Productivity of agencies and development of T&TA activities.

Local weatherization agency Professional Alliance work group and the Energy Center assessment of training needs concluded that:

Training should be on-going  
 Training should be mandatory depending on job classification and certification requirements, voluntary in other instances  
 Training should include theory and hands-on approach  
 Training should be provided on a regional basis  
 Training should include a combination of training options  
 Training should include conferences and workshops  
 Training should include peer exchange

The Missouri Energy Center, by Memorandum of Agreement, has entered into a long-term partnership with Linn State Technical College (LSTC) to provide a Missouri Training Center for the network of local agency weatherization technicians. LSTC is the first and only public institution in Missouri devoted solely to technical education at the Associate of Applied Science level. The Energy Center requires the network of local agency weatherization technicians to be trained in building science principals, advanced building diagnostics, combustion heating systems and whole house best practices approach to cost effective energy efficiency measures. Technicians are required to demonstrate competency in knowledge and performance skills in these disciplines through a testing and certification program.

Training courses will focus on Auditor, Shell Specialist and Heating/Cooling certifications. It is anticipated that training will include, but not limited to the following topics:

Building Science Principals  
 Basic Auditing Procedures  
 Advance Building Diagnostics  
 Air Sealing, Insulation Materials and Techniques  
 Combustion Heating Systems  
 Combustion Appliances  
 Duct System Diagnostics and Repair  
 Whole House Best Practices  
 Health and Safety  
 Mold and Mold Hazards Awareness  
 Using NEAT to Establish Weatherization Priorities  
 Blower Door  
 Lead-Safe Work Practices  
 Mobile Home Energy Audit Training

During program year 2004 the U.S. Department of Energy approved the Missouri mobile home energy audit procedure utilizing priority measures. In program year 2005, DOE also issued the MHEA audit. Missouri participated in the field testing of the MHEA audit. During program year 2006, Missouri will submit a mobile home energy audit procedure for DOE review. Training in program year 2006 will include a MHEA audit component. Full implementation of a mobile home audit component will be in program year 2007.

Lead-Safe Work Practices training is planned for both direct hire and contractor crew workers. New crewmembers should be trained within a six-month period. Re-training for lead-safe work practices should be completed within a three-year period.

Training activities will focus efforts on certification for Missouri weatherization technicians. The objective is to provide a mechanism by which technicians may be certified in accordance with the Building Performance Institute (BPI). BPI has established technical standards and testing protocols for trade professionals to ensure efficiency and durability of the buildings they work on and the comfort and safety of the people who live in them. BPI-certified technicians are required to demonstrate competency in the knowledge and performance skills necessary to inspect, diagnose and troubleshoot building performance issues.

As a result of prior training efforts local agency technical staffs are completing testing and are being certified under the Building Analysis I (Auditor) classification. In program year 2005 each weatherization agency will be required to have at least one BPI-certified auditor, Building Analyst I, on staff as part of a quality assurance program. In the event of staff turn over local agencies will be

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required to provide a plan and time schedule acceptable to the Energy Center for staffing of a Building Analyst I.

Details regarding state program oversight and T&TA funding are contained in the standard federal 424 from: Federal Assistance Budget information Section A and B. The Missouri Energy Center has allocated a portion of state T&TA funds to each local agency subgrantee. Each local agency subgrantee will be awarded new T&TA funds in the amount of \$5,000 upon DNR/EC approval of their T&TA plans. Local agency T&TA funds may only be used to pay for the cost associated with:

BPI related training courses related to certification and re-certification  
 Local and State LIWAP-related meetings and training conferences  
 Regional and national LIWAP-related meetings and training conferences  
 Training on computers and software related to LIWAP operations  
 LIWAP training or assistance provided between local agency subgrantees.

Effectiveness of Training and Technical Assistance:

Surveys of training participants to rate course content, effectiveness of instruction and applicability to improved weatherization services

Long-term reduction in utility bills  
 NEAT audit results and savings to investment ratio  
 Cost and quality of home energy retrofit  
 Housing quality monitoring inspections  
 Implementation of best practices and work quality standards

**MONITORING ACTIVITIES:**

DNR/EC monitoring activities span four distinct but interrelated areas of program operations:

1. Housing quality inspections
2. Production and expenditure reviews
3. Fiscal and program operations
4. Oversight of federal/state requirements and regulations

Implementing the DNR/EC monitoring system involves:

**A. Desk Monitoring**

A Subgrantee is required to submit monthly reports to DNR/EC that include the client's names, job numbers and other required information. From these documents, DNR/EC can determine compliance with:

- The federally designated expenditure categories.
- Mandatory expenditure levels.
- Actual expenditures versus planned expenditures.
- Overall expenditure rates by each Subgrantee.
- Characteristics of completed homes.
- Numbers of completed units per month.
- Numbers of persons and households by WAP targets.

Reimbursement to a Subgrantee is based on clear, accurate reporting of expenditures and clients served. DNR/EC provides each Subgrantee with an analysis of the monthly report. This includes feedback concerning specific problems a Subgrantee may be experiencing in its operations or in its compliance with grant requirements. Information collected is also used to target selected items for monitoring during field visits to a Subgrantee.

**B. Procedural Monitoring**

DNR/EC will visit each Subgrantee at least once each program year to review procedural, fiscal and compliance issues. DNR/EC will conduct a thorough review of the procedures of the Subgrantee by using a standardized check list.

DNR/EC will review Subgrantee compliance with federal/state regulations and requirements as specified in the Missouri WAP State Plan, the Missouri WAP Competitive Procurement Standards, and the DNR Terms and Conditions of Grant Agreement.

Annual independent audits will be reviewed to ensure audit financial schedules match financial reports submitted during the

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year.**C. Housing Quality Monitoring**

Several factors are inspected by DNR/EC housing quality monitors during on-site visits.

1. DNR/EC will schedule an on-site visit(s) to a Subgrantee as necessary, but at least once per program year, to inspect the quality of work on the homes completed. A representative sample of completed homes will be inspected to determine whether or not the work reported and materials installed are in compliance with WAP standards.

DNR/EC will have the option to inspect additional houses when implementing new measures or other concerns arise. Inspection checklists are used to assist DNR/EC with on-site inspections. Additional information may be obtained or requested from the Subgrantee client files to document the findings of the monitoring visit. DNR/EC will inspect the following:

- Compliance with allowable WAP measures.
- Quality of work.
- Accuracy of the report concerning the amount of material installed on the home.
- Assurance that the initial energy audit and final inspection are appropriate, accurate and complete.

2. DNR/EC may also perform follow-up reviews of homes where additional work or corrective measures were required as a result of a past DNR/EC inspection.

3. Selected materials will be inspected to insure they meet federal specifications.

4. Pre-audits may be done to determine accuracy.

**D. Independent Monitoring****1. Independent Fiscal Audit Review**

A Subgrantee is required to have an annual fiscal audit, in accordance with OMB Circular A-133. This audit shall document expenditures and compliance with regulations and requirements. The independent auditor shall use the schedules found in the WAP audit guide to present the required financial data. Findings are compared to the subgrant and monthly reports.

**2. USDOE Support Office Review**

DNR/EC participates in monitoring performed by the USDOE Support Office which provides an opportunity for independent review of the Subgrantee. These monitoring activities are tracked by the Annual Training, Technical Assistance, Monitoring and Leveraging Report.

**II.7 DOE-Funded Leveraging Activities**

Federal regulations allow weatherization funds to be used for leveraging activities. Under leveraging, subgrantees work at developing relationships with property owners, utility companies and other entities that generate non-federal resources for the program. Non-federal resources are used to supplement the program and expand energy efficiency services and/or increase the number of dwelling units completed for weatherization eligible clients.

Subgrantee agencies are encouraged to request up to 5% of their grant allocation for leveraging purposes. Subgrantee requests for leveraging must include specific planned leveraging activities; targeted partners (e.g., landlords, utilities, other agencies); and estimated outcomes including dollar amounts. A budget decrease from the maximum allowed under this category will require written justification and DNR/EC approval. If agencies do not initiate meaningful leveraging activities, the funds may be considered as state carryover, and may be redirected to other agencies.

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Kansas City Neighborhood and Community Services Dept.	Mr. Robert Jackson, Weatherization Director
Ozark Action, Inc.	Mr. Terry Sanders, Weatherization Director
Office of Public Counsel	Mr. Ryan Kind
Boone Electric Cooperative	Mr. Chris Rohlfing
Public Service Commission	Ms. Anne Ross
Lieutenant Governor's Office	Mr. Eric Feltner
Economic Security Corporation of Southwest Area	John Joines
Ozarks Area Community Action Corp	Mr. Todd Steinmann, Weatherization Director
Missouri Gas Energy	Ms. Pam Levetzow

**II.9 State Plan Hearings (send notes, minutes, or transcript to the Regional Office)**

Hearing Date
02/21/2006
02/23/2006

Newspapers that publicized the hearings and the dates that the notice ran.

Kansas City Star, February 9, 2006  
St. Louis Post-Dispatch, February 13, 2006

**II.10 Adjustments to On-File Information**

- Weatherization Assistance funding not spent by the end of a budget period may be recaptured.
- No more than 15 percent of subgrantee agency awards may be carried forward into the next budget period.
- Subgrantee carryover in excess of 15 percent may be recaptured and redistributed to other subgrantee agencies as determined by the DNR/EC.
- If because of leveraging of other funds or other circumstances, a subgrantee agency determines the need to carryover monies in excess of 15 percent, a request along with documentation and justification must be submitted to the DNR/EC for approval.
- The DNR/EC plans to utilize the \$2,826 average cost per home, including any inflationary adjustments.

**II.11 Miscellaneous**

DNR/EC began using the NEAT audit on a statewide basis on July 1, 1994. The NEAT re-approval was obtained on 12/10/2003.

Technical Work Group: The state, working with the Professional Alliance, formed a Technical Work Group. This group will advise the state on technical matters such as electric base load measures. The Technical Work Group is represented by:

Larry Sapp, Linn State Technical College, Linn  
Dale Noland, Economic Security Corporation, Joplin  
Terry Sanders, Ozark Action, Inc., West Plains  
Mike Baker, Northeast Missouri Community Action Agency, Kirksville  
John Quimby, KC Department of Housing & Community Development, Kansas City  
Teresa House, Central Missouri Community Action, Columbia  
David Miller, Missouri Ozarks Community Action, Richland  
Steve Cobb, Delta Area Economic Opportunity Corporation, Portageville  
Todd Steinmann, Ozarks Area Community Action Corporation, Springfield

The Technical Work Group will make recommendations regarding implementation of electric baseload measures for the Missouri Weatherization Program.

Disaster Plan

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Declaration of a disaster for WAP purposes is determined by a Presidential or Gubernatorial order declaring either a Federal or State emergency. It may be the result of natural or man-made factors. It is the responsibility of the Energy Center Weatherization Assistance Program, through its subgrantee network, to assist state and community authorities in normalizing areas affected by a disaster by providing WAP resources to assist Missouri low-income citizens in recovering and rebuilding after the disaster. The Weatherization Program will adhere to the following guidelines when responding to any disasters in which the low-income population has been affected. These guidelines are intended to maximize the assistance we are able to provide while protecting the limited resources of the program.

Disaster-mitigation planning activities shall be implemented as soon as practical after the declaration of a disaster. A WAP subgrantee shall not commit WAP resources (labor or financial) until it receives approval from the Energy Center.

Any additional disaster-related funds will be allocated based on the extent of the disaster in each subgrantee area. Funds must supplement, not supplant, other funds available for disaster assistance. All funds received by the client to cover damages must be considered prior to the allocation of WAP resources. Attachment 2-3, the Disaster Certification form located at the end of this section, should be completed for each client requesting disaster assistance.

Safety measures, such as levees or other protections, should be in place prior to mitigation activities. Agency staff should consult with local utilities to ensure electric, gas and sewer hazards have been corrected or repaired.

**A. Allowable Disaster Activities**

Allowable disaster activities may include debris removal and other clean-up work in preparation for weatherization as well as normal weatherization services. If agency staff is assigned to another area of the state to assist in disaster activities, it will be the parent subgrantee's responsibility to maintain their salaries and to arrange for agency reimbursement. The following ECM priority list is recommended for disaster homes.

Labor for gutting damaged components of the house and debris clean up.

Primary heating system replacement and repair (including ductwork repair; replacement, cleaning and sealing of all joints; and venting, flue and chimney replacement, repair and cleaning).

Domestic water heaters (venting and flues included).

Window and door repair and/or replacement.

Air sealing (basic infiltration and exfiltration work).

Attic insulation and ceiling coverage.

Wall insulation.

Specific procedures to weatherize mobile homes under the disaster provisions are found in Attachment 2-4.

**B. Eligibility Requirements**

WAP subgrantees must ensure that applicants for disaster assistance (1) meet the current eligibility requirements, (2) are located within the designated disaster area and (3) have been directly affected by the disaster. Homes located in a FEMA-sanctioned area are not eligible for assistance.

Applicant homes must be certified as habitable, and a disaster certification form must be completed, signed and retained in the client file. The owner of a rental unit must list the property with Section 8 or provide other proof that the unit will remain exclusively for the low-income. A landlord contribution, based on a sliding scale, will be required (if a landlord contributes a furnace or other material, its value can be counted toward the contribution).

Client income eligibility may be based on one month's income. The fuel priority selection criteria allows for up to 100 points for disaster clients. Victims needing heating system or water heater repair or replacements will be served first.

Disaster-damaged homes may be re-weatherized without regard to the initial date of weatherization if the damage is not covered by insurance. Victims may receive repair or replacement to domestic hot water heaters as a health-and-safety measure. Repairs to the building structure that exceed the allowable limits must be approved by the state.

**C. Equipment Procurement**

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Procurement of equipment and appliances can be done through telephone bids, and all purchased items should meet minimum energy-efficiency ratings. Subgrantees must comply with all requirements specified in 10 CFR Parts 600 and 440, Department of Financial Assistance Rules as amended, and the requirements specified in the DNR Terms and Conditions, Missouri Weatherization Program Competitive Procurement Standards.

**D. Additional Funding**

If additional funds are received from the department or other fund sources, a subgrantee may allocate up to \$10,000 per unit. If no additional funds are received, the state plan cost limits apply. Program operations money may be used to support mitigation and clean-up activities. No additional administrative funds will be provided for disaster work.

**E. Disaster Expenditures Accountability and Reporting**

Disaster expenditures must be accounted for and reported separately from other costs. The monthly report must show these expenses under "other". The costs will not be included in the averages. Budget adjustments must be made within 30 days of the date of the incurred costs.